

**TRANSLATION  
OF  
DE 4014477 A1**

**FROM GERMAN TO ENGLISH**

**(6 PAGES INCLUDING THIS COVER PAGE)**

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1,357 words

Notes to Translation:

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1) Claim 1 (p.4, l.21): There appears to be a mistake caused by a transcription error.

The term *selector unit* in the phrase

*...then drives the selector unit to output a number of coins...*

should probably be *pay-out unit*. The German terms are very close

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(Auswahleinheit/Auszahlseinheit) and may have been inadvertently confused. The language in Claim 4, which refers to a pay-out unit (Auszahlseinheit), supports this conclusion.

## Roulette-Type Coin-Operated Gaming Machine

Description

5 The invention relates to a method for operating a coin-operated gaming machine of the roulette type, with a roulette-like number pan and setting keyboard arranged on the front side of the coin-operated gaming machine, in which the player fixes the amount of the bet by the insertion of coins and subsequent key selection, and a microprocessor then determines the game result by means of a random algorithm and, when a set number has been hit, activates the coin output unit for the  
10 ejection of the main winnings, and to a coin-operated gaming machine for carrying out the method.

In known coin-operated gaming machines of the relevant generic type, numbers from 0 to 12 can be set by means of one or more coins. Depending on the set number range and the player's selection, in the event of a win an amount of up to  
15 12 times the winning number can be paid out. It has been shown, however, that a maximum obtainable win multiplier of 12 gives players, who are aware of the possibility of achieving jackpot wins from other coin-operated gaming machines, only a slight incentive to play.

The object of the invention is to improve the abovementioned method for  
20 operating a coin-operated gaming machine of the roulette type, in such a way that, depending on chance, there is the possibility of achieving maximum jackpot-like winnings. The object of the invention is, furthermore, to design a coin-operated gaming machine so that it allows the method to be carried out.

According to the invention, this object is inventively achieved by means of the  
25 characterizing features of claim 1 and claim 4 as regards the method and the coin-operated gaming machine, respectively. Advantageous embodiments of the invention are described in the dependent claims.

According to the invention, the player has the possibility that, in the event of a hit of the set number, the random-number generator of the additional processor  
30 determines a winnings multiplier for the maximum winnings which is a multiple higher than in known coin-operated gaming machines. In coin-operated gaming

machines designed according to the invention, the factors of the random winnings multiplier are graded, for example, in the following divisions: 10, 25, 50, 100, 1000 or 8, 12, 20, 100, 1000. The statistical average of payouts actually made likewise amounts to 12, that is to say, even when the additional random-number generator is used, the statistical average remains at the winnings multiplier of 12. However, the random-number generator of the additional processor is so designed that in 85%, or respectively 65%, of all game situations, when a set number is hit, the random-number generator determines only the lower winnings multiplier. Thus, if 15 bets are placed on one number, in this case the player receives only ten times or eight times his bets and therefore less than in the known coin-operated gaming machines. In contrast, in 15%, or respectively 35%, of all game situations, when a set number is hit the random-number generator of the additional processor determines a higher winnings multiplier, such as, for example, 25, 50, 100, 1000 or 12, 10, 100, 1000 respectively. Thus, with 15 bets on the hit number, jackpot-like winnings of fifteen thousand bets is possible. This appreciably increases the player's incentive to play. When the additional processor is designed as a 33-bit processor with a random-number generator, as a result of the large number of approximately 4.2 billion basic numbers it is virtually impossible to determine a random combination producing a jackpot. This affords the machine operator a good safeguard against unauthorized persons obtaining a jackpot by manipulation.

A risk circuit can also be provided additionally or alternatively. By the actuation of a risk button, the player can then, for example, risk the jackpot and thereby has the possibility of achieving a kind of superjackpot. It is advantageous in this case to display the "jackpot" status on the front face of the coin-operated gaming machine, so that the player still has the opportunity for a short time to commence the risk game.

A perspective view of an inventive coin-operated gaming machine is represented in the Figure, which will now be described.

On the front side of the machine housing 2 of the coin-operated gaming machine 1 are a roulette-like number pan 3 and a setting keyboard 10. Above the number pan 3 is a built-on part 4 with a display panel 5 for winnings multipliers and

a display panel 6 for indicating that the coin-operated gaming machine 1 is a roulette-type gaming machine. On the front side of the built-on part 4 is a flash lamp 7 which flashes in the event of a disturbance of the coin-operated gaming machine and in the event of a jackpot. The supervisory personnel can thereby immediately recognize deviations from the normal playing mode or the occurrence of disturbances. The built-on part 4 can also be integrated into the actual machine housing 2. Next to the number pan 3 is a display panel 8 for the winnings display and a display panel 9 for indicating the bet still available. Between the number pan 3 and the setting keyboard 10 are function keys 11, 12 and the coin-insertion slot 13. Arranged under the setting keyboard 10 are additional function keys 14, 15, 16 and the coin-ejection tray 17.

The setting keyboard 10 has fields for the numbers 0 to 12 and fields for the high numbers 7 to 12 and for the low numbers 1 to 6 and for numbers arranged only on the black or only on the red background. The maximum bet of coins in one playing period is limited to 15 coins for each selected field of the keyboard. If the set number is hit, a hit is obtained. In this case, the microprocessor of the control unit in the machine housing drives an additional processor having a random-number generator which determines the winnings multiplier on the basis of the entered algorithm. This can be organized, for example, according to a grading of 10, 25, 50, 100, 1000 or 8, 12, 20, 100, 1000. When the win multiplier 1000 is determined, a jackpot is achieved and the coin-operated gaming machine 1 ejects an amount corresponding to 1000 times the bet, in this example 15000 coins.

#### Patent Claims

1. A method for operating an electronic coin-operated gaming machine of the roulette type comprising a roulette-like number pan and setting keyboard arranged on the front side of the coin-operated gaming machine, wherein a player fixes the amount of a bet by inserting coins into a coin-slot of the gaming machine and selecting a key, and then a microprocessor determines the game result by means of a random algorithm, and, if a set number is hit, drives the coin ejection unit to eject the winnings, characterized in that whenever a set number is hit, the microprocessor

drives an additional processor containing a random number generator so that this random number generator determines a winnings multiplier based on an entered algorithm and multiplies it by the amount of the bet on the number that was hit, then drives the selector unit to output a number of coins whose quantity corresponds to the product of the bet placed on the number that was hit and the winnings multiplier.

2. Method according to claim 1, characterized in that the microprocessor drives a 33-bit processor.

3. Method according to claims 1 and 2, characterized in that the signal representing the winnings multiplier is supplied to a risk circuit.

4. Coin-operated gaming machine according to one of the claims 1 to 3, characterized in that the microprocessor is connected to an additional processor with a random number generator, which is drivable when a set number is hit and which is linked with the pay-out unit.

5. Coin-operated gaming machine according to claim 4, characterized in that the additional processor is constructed as a 33-bit processor.

6. Coin-operated gaming machine according to claims 4 and 5, characterized in that the additional processor is constructed as a random number generator.